

**ATTACHMENT “A”-
STATEMENT OF BASIS WITH COMMENTS**

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS WITH COMMENTS

CONDITIONAL MAJOR PERMIT NO. F-01-001

WEYERHAEUSER COMPANY

HENDERSON, KENTUCKY

December 20, 2002

FROUGH SHERWANI

PLANT I.D. # 21-101-00117

APPLICATION LOG # 51310

SOURCE DESCRIPTION:

Weyerhaeuser Company operates a recycle mini-mill in Henderson, Kentucky. The mini-mill will recycle old corrugated container and produce liner board. The liner board will be sold or reused to construct new corrugated containers.

Weyerhaeuser Company, has applied for a permit renewal. Weyerhaeuser Company (WC) was previously Macmillan Bloedel Packaging Inc (MB). A federally enforceable permit (F-94-013) was issued on December 29, 1994, to authorize construction of the plant. The permit limited the emissions of sulfur dioxide, particulate and nitrogen oxide to be below 83.22 TPY, thus making it a conditional major source with respect to the above pollutants. The maximum quantity of heat input into the boiler was limited to 190 MM Btu/hr. The permit also had the condition to solely fire the boiler with natural gas. The company assumed these permit conditions to preclude the applicability of Title V of the Clean Air Act. The plant started operation in December of 1995. A significant revision to the permit F-94-013 was issued on October 27, 1997 for increased daily design capacity of the paper from 400 machine dry tons per day to 458 machine dry tons per day and the increased boiler heat input capacity from 190 MM BTU per hour to 220 MM BTU per hour. Also, a secondary fuel (Propane/Air) was added to fire the boiler for 10% of the time. The Division for Air Quality (DAQ) has concluded that the proposed changes were significant and the permit revision, F-94-013 (Revision 1) was issued according to 401 KAR 50:035, Section 16, Significant Permit Revisions. This source would still be classified as major (based on uncontrolled emission potential and allowable emission rates), except for the inclusion of federally enforceable conditions in the draft permit. The plant is classified as a conditional major source with respect to NO_x emissions.

Permits F-94-013 and F-94-013 (Revision 1) required WC to continuously monitor NO_x emissions from the boiler (Emission Point 07) in accordance with the provisions of 40 CFR 60, Subpart Db, Section 60.48b. However the CEM was never installed. The Division issued a NOV in March 1998. WC proposed to install a PEMS software in lieu of the CEM system to continuously monitor NO_x emissions and report the information as required by 40 CFR 60.49b(g). However, as per 40 CFR 60.49b(c), each affected facility subject to the nitrogen oxides standard of 40 CFR 60.44b who seeks to demonstrate compliance with the standards through the monitoring of steam generating unit operating conditions under the provisions of 40 CFR 60.49b(g)(2) shall submit to the Administrator (KYDAQ) an approved plan within 360 days of the initial startup of the affected facility. In the conference call the Division had with the company and U.S. EPA, it was decided that WC can still do PEMS after 360 days after the start up with EPA's approval. Also, the Division was

advised to forward the PEMS RATA and 30-Day Initial Compliance Test Report on PEMS and package boiler for EPA review after the Division reviewed it. WC has performed the PEMS RATA on the package boiler after the Division approved the testing plan. MB has submitted the PEMS RATA and 30-Day Initial Compliance Test Report on PEMS and the package boiler in January 1999. The Division has reviewed the data, analysis, and supporting information. The example guidance provided in the TTN web on PEMS (specifications, test procedures, monitoring protocol etc.) was used to assist in the determination. The Division requested WC submit additional information on the Sensor Drift Study. After the review of the information submitted, the Division has made the determination that the PEMS and the reporting package associated with the PEMS are acceptable.

The Division's determination and support information (EPA PEMS RATA and Compliance Test Report) was forwarded to EPA for its comments on April 29, 1999. U.S. EPA requested more information on January 10, 2000. The Division requested the information from WC and the required information was submitted to EPA on August 7, 2000. On October 20, 2000, U.S. EPA approved WC to use PEMS data as an alternative to using CEM data for the initial 30-day NOx compliance determination and also use PEMS for the ongoing monitoring required under Subpart Db.

The revised permit will allow WC to use PEMS for compliance with the NOx excess emissions requirement (See permit for specific conditions).

COMMENTS:

No toxics emission limitations are listed in this permit because toxic emissions are in compliance with regulation 401 KAR 63:020 using the Screen 3 modeling algorithm to calculate emission concentrations.

The emission points are described below:

Emission Points 01 through 06:

01 (01) Saveall Thickener

Description:

De-watering Device to aid in the removal of water from the pulp slurry.

Maximum Capacity: 33.3 Machine Dry Tons of paper/hr

Construction Commenced: January 1995

Material Used: Biocide

02 (02) Bottom-Ply Section

Description:

Consists of bottom-ply head box (distribution point for pulp slurry) and bottom-ply web section. This equipment forms bottom-ply section of two-ply liner board. The bottom-ply headbox in combination with the top-ply section, press section and dryer section make up the paper machine. Maximum Capacity: 33.3 Machine Dry Tons of paper/hr
Construction commenced: January 1995
Material Used: Retention Aid, Foamtrol, CC-B1

03 (03) Top-Ply Section**Description:**

Consists of top-ply head box (distribution point for pulp slurry) and top-ply web section. This equipment forms top-ply section of two-ply liner board. Maximum Capacity: 33.3 Machine Dry Tons of paper/hr
Construction commenced: January 1995
Material Used: Retention Aid, Foamtrol, CC-B1

04 (04) Press Section**Description:**

Consists of two individual presses (Series of Rollers)
Maximum Capacity: 33.3 Machine Dry Tons of paper/hr
Construction commenced: January 1995
Materials Used: Retention Aid, Foamtrol, CC-B1, CC-B

05 (05) Dryer Section**Description:**

Consists of three individual dryer sections (series of rollers), which receive steam from the 220 mmbtu/hr boiler, (Em Pt 07).
Maximum Capacity: 33.3 Machine Dry Tons of paper/hr
Construction commenced: January 1995
Materials Used: Retention Aid, Foamtrol, CC-B1, CC-B

06 (06) Aeration Basin**Description:**

65,100 ft² aeration basin with six(6) aeration units
Maximum Capacity: 6 million gallons
Construction commenced: January 1995

The major emissions from these processes are VOC and HAP.

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to the toxic emissions. [April 9,1972]

Emission Factors and Emissions Calculations:

Emissions are calculated from AP-42 emission factors, engineering estimates and source tests.

Periodic Monitoring:

The Division has done modeling using Tscreen to analyze the air toxics concentrations to see if the emissions are below the EPA, Region 9, Preliminary Remediation Goals (PRGs) for Ambient Air. The results have shown that all the toxics emissions will be less than the respective PRGs.

Emission Points 07 – 220 mmBtu/hr Boiler

The process and the applicable requirements are described in the source description.

Emission Factors and Emissions Calculations:

Emissions are calculated from AP-42 emission factors, and source tests.

Periodic Monitoring:

As described in the Source Description, the PEMS will be used to monitor the NOx excess emissions. The five boiler operating parameters (Fuel Flow, Oxygen Content, boiler air flow, inlet temperature, and the outlet temperature) will be monitored continuously using sensors and the data recorded is used to calculate the NOx emissions using the PEMS model.

EMISSION AND OPERATING CAPS DESCRIPTION:

The source wide emissions of Nitrogen Oxide (NOx) are limited to 96.36 TPY to stay below the major source threshold of 100 TPY.

OPERATIONAL FLEXIBILITY:

N/A

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements.

At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.

PUBLIC AND U.S. EPA REVIEW:

On February 13, 2001 the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in *The Gleaner* in Henderson, Kentucky.

The public comment period ended on March 15, 2001 and U.S. EPA comments period fifteen days after that. During this time no comments were received from the affected state (Indiana and Ohio) or the US EPA. Comments were received from the company. These comments are incorporated in the final permit.

The draft permit was issued per regulation 50:035. Comments were received from WC on the draft permit. This final permit will be issued under the new 52:030 regulation. Comments for the referenced section are different from draft to final and are reflected below.

Comments from Weyerhaeuser and Division's Responses

1. The Permit Statement of Basis identifies the need to limit source-wide emissions of NO_x to less than 96.36 tons per year (tpy) in order to stay below the major source threshold of 100 tpy. The Title V Permit Application Summary contains an emissions table, which lists the potential NO_x emissions as 96.36 tpy. Weyerhaeuser requests confirmation that this limit applies only to the boiler, and does not include any insignificant sources of NO_x such as small engines and emergency fire fighting water pumps or other insignificant units listed in 40 KAR 50:035.

Divisions Response:

Division has changed the permit to reflect that the limit of 96.36 tons per year (tpy) is the limit only from emission point 07, the 220 mmBTU/hr boiler. The sourcewide limit is set at 98 TPY.

2. Similarly, the emissions table lists "0" for actual and potential SO₂ emissions. This is not consistent with the permit limitation and compliance demonstration requirement for SO₂ on page 4 of the permit. Weyerhaeuser requests confirmation that emissions of SO₂ from the boiler are allowed by this permit and that any insignificant sources of SO₂ such as laboratory vents and emergency fire fighting water pumps or other insignificant units listed in 40 I KAR 50:035 are not included in that amount.

Divisions Response:

The emissions table in the Summary form is updated to reflect the actual SO₂ emissions.

3. The Permit Statement of Basis describes the emission sources with terms that have since been changed, based on previous comments. However, the current draft permit contains the correct terms and descriptions.

Divisions Response:

The Permit Statement of Basis has been updated to make the descriptions consistent.

4. Weyerhaeuser understands that the regulations at 401 KAR 50:035 have been recently repealed and replaced, but the draft permit references the repealed citations throughout. Therefore, would the permit need to reference the new regulations upon issuance or would there need to be a modification in the future to accommodate the new regulation citations?

Division's Response:

The Permit has been changed to reflect the new permitting regulation 401 KAR 52:030.

5. The Permit Statement of Basis identifies the use of Screen 3 or ISCST3 modeling as a permit requirement. This is not consistent with the draft permit on page 3. Weyerhaeuser objects to

the inclusion of this modeling in the permit as anything other than guidance to be used in the event a proposed modification would be subject to state and/or federal regulations. In other words, if no Kentucky or federal regulations would apply to a proposed change in process chemicals, Weyerhaeuser would not be expected to perform air toxics modeling. In addition, the EPA Preliminary Remediation Goals referenced in the draft permit are not federally enforceable or applicable requirements under the Title V permit program.

Division's Response:

The condition requiring Weyerhaeuser to do modeling is removed from the statement of Basis and the permit. The permittee is responsible for compliance with any state or federal regulations.

6. On page 3, in the same section referenced in the comment above, the word "done" should be inserted into the Note after the words "Modeling can be."

Division's Response:

See the response to comment 5 above.

7. On page 5, section 3.b.ii, fourth line -change the word "date" to "data."

Division's Response:

It has been changed in the permit.

8. On page 6, section f 9 (Draft Permit), second line -replace the word "namely" with "including, but not limited to." This will allow for additional parameters to be added to the PEMS without having to modify the permit.

Division's Response:

The permit is changed to add the requested language.

9. On page 6, section g.ii (Draft Permit), first line -replace the words "at midnight" with "at approximately midnight, local time."

Division's Response:

The permit is changed to add the requested language.

10. On page 6, section g.iii (Draft Permit), third line -replace the word "sound" with "occur." This will allow for audible as well as visual and other types of alarms.

Division's Response:

The permit is changed to add the requested language.

11. On page 6, section g.iv (Draft Permit). -Weyerhaeuser requests some clarification on how much of a change would trigger this condition. Perhaps, by making the change a "statistically significant change."

Division's Response:

The permit is changed to add the requested language.

12. On page 7, section 6.a.vi. and vii (Draft Permit), -the vendor for the PEMS has claimed these equations to be proprietary and has not shared them with Weyerhaeuser. In the event this information is not available for inclusion in the report, could there be an acceptable alternative?

Division's Response:

The requirement to submit equations has been deleted. However, a requirement to report the monthly sensor drift alarms and emission model integrity check failures has been

added.

13. On page 9, section D (Draft Permit), second paragraph -insert the words “from the boiler” after the word “rate.”

Division’s Response:

See the Division’s response to comment 1. The source shall show compliance with the plant wide NOx limit of 98 TPY and the boiler limit of 96.36 TPY.

14. On page 14, section G.8 (Draft Permit). -Weyerhaeuser requests that the portions of this permit that are State-origin be clearly identified in the permit.

Division’s Response:

There are no State Origin requirements in this permit.

15. On page 15, section G(d) (Draft Permit), was apparently skipped in the numbering of the sections. This should either be noted for clarity or the sequence should be renumbered.

Division’s Response:

The new boiler plate does not have any conditions in Section G(d) as there is no construction with this permit.

16. On page 16, section G(g) (Draft Permit), 1, second line -add the words “, *if any*” after the word “provisions.” This regulation is currently not applicable to the facility.

Division’s Response:

The new boiler plate does not have any conditions in Section G(g).